UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,434	03/17/2004	James Finn Aldridge	15436.177.1	3518

22913 7590 01/25/2007

WORKMAN NYDEGGER
(F/K/A WORKMAN NYDEGGER & SEELEY)
60 EAST SOUTH TEMPLE
1000 EAGLE GATE TOWER
SALT LAKE CITY, UT 84111

EXAMINER	
LEUNG, QUYEN PHAN	
ART UNIT	PAPER NUMBER
2874	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/802,434	ALDRIDGE, JAMES FINN	
	Examiner	Art Unit	
	Quyen P. Leung	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20050120, 20050208*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

The six (6) pages of drawings filed on 3/17/2004 are acceptable.

Information Disclosure Statement

The prior art documents listed in the Information Disclosure Statement filed on Jan 20, 2005 and February 8, 2005 have been considered and made of record. Note the attached initialed copies of the IDS.

Specification

The disclosure is objected to because of the following informalities: on page 2 paragraph [0004] line 1 "Is often" should be replaced with –It is often--; on page 4 paragraph [0010] line 1 "a the multiplexed transmission" should be replaced with –the multiplexed transmission 104--.

Appropriate correction is required.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6-9, 12-13, 15-17, 20-21, 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Le et al (WO 99/12268). Le et al discloses the claimed invention of a method and optical system for sending dense wavelength division multiplexing signals on a coarse wavelength division multiplexing infrastructure. Re claim 1 see figures 2 and 4 and pages 7-8 and 13-14 for the method comprising: multiplexing a plurality of dense wavelength division multiplexing channels(1538.19, 1539.77, 1541.35, 1542.94) onto an optical signal (BLUE), wherein each of the dense wavelength division multiplexing channels is of a wavelength that can be superimposed on a bandwidth of a coarse wavelength division multiplexing channel; and propagating the optical signal (BLUE) onto a fiber optic network (FIBER PLANT 201), wherein the fiber optic network comprises

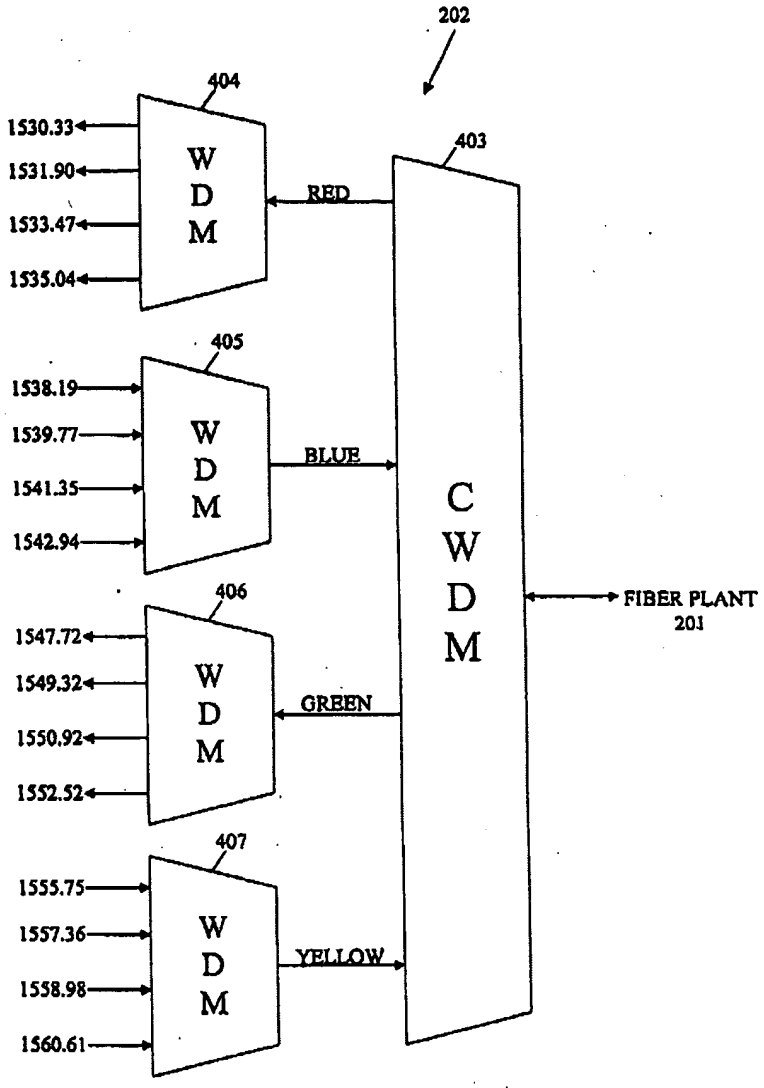

FIG.4

components (403) that are compatible for use with coarse wavelength division multiplexing signals.

Re claim 9, see figures 2 and 4 and pages 7-8 and 13-14 where Le et al teaches an optical system for use in sending dense wavelength division multiplexing signals on a coarse wavelength division multiplexing infrastructure, the system comprising: a first DWDM multiplexer (405) for receiving a first plurality of DWDM signals (1538.19, 1539.77, 1541.35, 1542.94) and multiplexing the first plurality of DWDM signals into a first multiplexed signal (BLUE), wherein each of the DWDM channels is of a wavelength that can be superimposed on a bandwidth of a CWDM channel; and a CWDM multiplexer (403) for receiving a plurality of signals (BLUE, YELLOW) over separate bandwidths of CWDM channels and multiplexing the plurality of signals into a second multiplexed signal for insertion into a fiber optic network (FIBER PLANT 201), wherein one of the plurality of signals is the first multiplexed signal (BLUE).

Re the first node and second node, see Le et al's Site A and Site B which are clearly separate nodes within a network.

Re a switch for routing data services, see page 10 lines 11-12 for switches among other hardware for routing data between sites A and B.

Re optical add delete multiplexer (OADM), see abstract which suggests it by teaching that "fine WDM units and optical lineamplifiers can be added in a modular fashion, as needed, to support actual or anticipated traffic in the corresponding subwindows and channels therefor."

Claims 1-24 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Lauder et al (US PGPub 2002/0105692). Lauder et al discloses an optical system for use in sending dense wavelength division multiplexing (DWDM) signals on a coarse wavelength division multiplexing (CWDM) infrastructure. See figure 1 which shows a first DWDM multiplexer (16) configured to receive a first plurality of DWDM signals and multiplex the first plurality of DWDM signals into a first multiplexed signal (λ band 1) wherein each of the DWDM channels is of a wavelength that can be superimposed on a bandwidth of a CWDM channel; and an optical add delete multiplexer (14/406, see paragraph [0054],[0055]) configured to receive the first multiplexed signal (λ band 1) and superimpose onto a second multiplexed signal that comprises a plurality of CWDM signals.

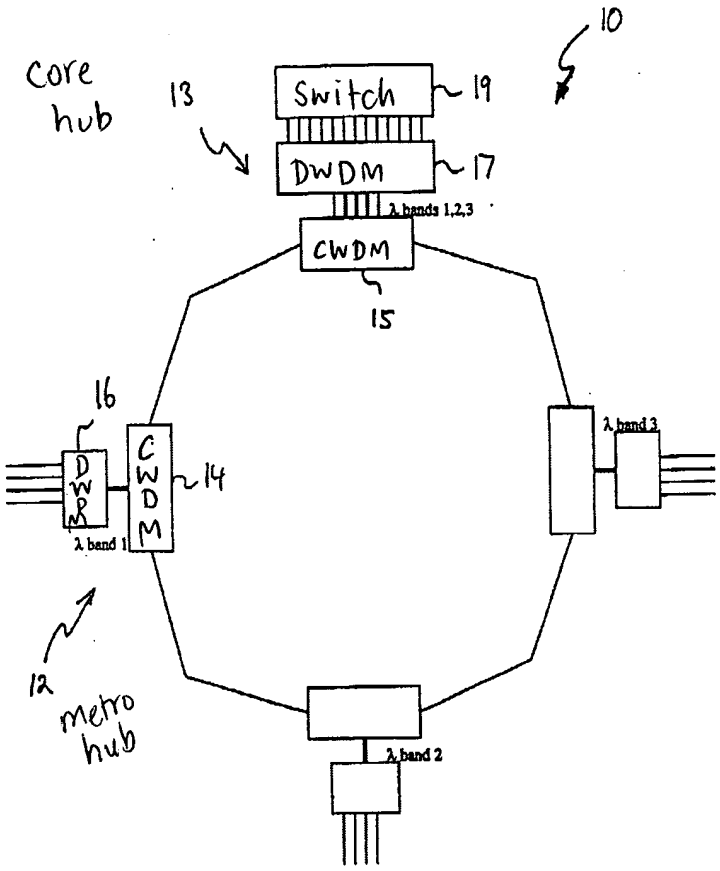

Figure 1

Re first node within a metro area network, see for example Metro Hub 1 in figure 2. Re second node in the metro area network, see Metro Hub 2 in figure 2. Also see figure 5 for the major units that make up each Hub, including a CWDM (406) that adds/drops signals and a DWDM MUX/DEMUX (410). Re the DWDM transceiver modules (410) comprising interface converters, see figure 5's interface cards (412, 416) and note paragraph [0056] for the suggestion of Gigabit interface cards because of the optical system's wavelength spacing being in the GHz range. Re switching see figure 5's switch (414). Re the particular wavelengths, see paragraph [0056] for the CWDM channels being around 1530 nm to 1560 nm.

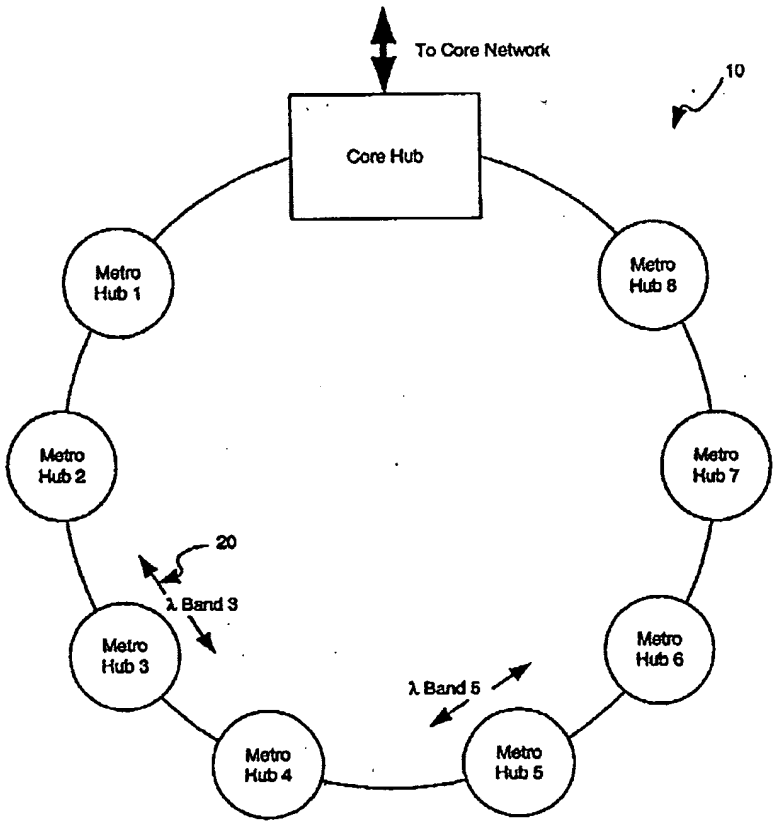

Figure 2

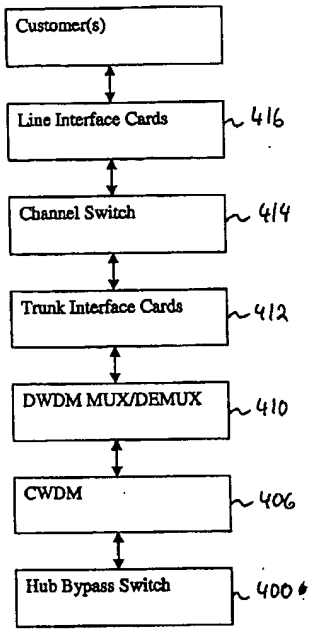

Figure 5

[0056] The allocation of the wavelength bands that are added and dropped by the CWDM Unit **406 (FIG. 5)** determines the logical connectivity of the network and the number of channels allocated to the hubs. A number of exemplary CWDM Band Allocation schemes are now disclosed. These exemplary schemes are based on using the conventional transmission band, referred to as "C-Band", which spans the wavelength range from around 1530 nm to 1560 nm, or additionally using the long-wavelength transmission band, referred to as "L-Band", which spans the wavelength range from around 1580 nm to 1610 nm. In these exemplary allocation schemes the wavelength spacing is assumed to be 50 GHz (approximately 0.4 nm). It is further assumed that each hub comprises 16 Trunk Interface Cards **412 (FIG. 5)** and 16 Line Interface Cards **416 (FIG. 2)**, and thus requires 16 Tx wavelengths and 16 Rx wavelengths. It will be appreciated that other transmission bands, alternative wavelength spacings, and hubs with different numbers of Trunk Interface Cards **412 (FIG. 5)** and Line Interface Cards **416 (FIG. 5)**, may be employed without departing from the scope of the present invention.

Conclusion

Any inquiry concerning the merits of this communication should be directed to Examiner Quyen Leung at telephone number (571) 272-8188. The Examiner's normal work schedule is Monday through Friday, 6:15 AM to 2:45 PM. Any inquiry of a general or clerical nature (i.e. a request for a missing form or paper, etc.) should be directed to the Technology Center 2800 receptionist at telephone number (571) 272-1562, to the technical support staff supervisor (Team 8) at telephone number (571) 1564, or to the Technology Center 2800 Customer Service Office at telephone number (571) 272-1626.

Quyen Leung
Primary Patent Examiner
Group Art Unit 2874